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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,018

12/02/2003

Kent Crouse

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EXAMINER

DUONG, DIEU HIEN

ART UNIT

PAPER NUMBER

2821

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/726,018	Applicant(s) CROUSE ET AL.	
	Examiner Dieu Hien T. Duong	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/26/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 16-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) 2-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/05/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-15 in the reply filed on January 26, 2007 is acknowledged.

Claims 16-43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 26, 2007.

Claims 1-15 are now presented in the instant application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ribarich et al. (US 2002/0158591 A1).

Regarding claim 1, Ribarich, in Figures 1 and page 2, par. [0027], discloses a software controlled electronic dimming ballast comprising an inverter circuit (18) for supplying current to a lamp (26); and a dimming control circuit 24 for controlling the current supplied by the inverter circuit 18 to the lamp 26 and thereby causing the lamp to have a desired lamp dimming level, the dimming control circuit (24) including a dimming control signal input (10, 20) for receiving a lamp dimming level, a lamp

dimming level feedback signal input (lighting control feedback) for receiving a lamp dimming level feedback signal representative of an existing lamp dimming level, and an inverter control signal output (inverter drive) for an outputting an inverter control signal having a pulse width and frequency that causes the inverter circuit to supply the lamp with sufficient current to cause the lamp to have the desired lamp dimming level; the dimming control circuit (24) further including lamp dimming level control software (22) for causing the dimming control circuit to incrementally modulate the pulse with and frequency of the inverter control signal based on the dimming control signal and the lamp dimming level feedback signal (page 2, par. [0027], lines 23-26).

Allowable Subject Matter

4. Claims 2-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, prior art fails to teach or suggest the dimming control circuit converting the lamp dimming level feedback signal into existing lamp dimming level digital data representative of the existing lamp dimming level; and the lamp dimming level control software causes the dimming control circuit to generate the inverter control signal based on the desired dimming level digital data and the existing lamp dimming level digital data.

Claims 3-4 would be allowable since they are dependent on claim 2.

Regarding claim 5, prior art fails to teach or suggest the dimming control circuit converting the analog dimming control signal into desired lamp dimming level digital data representative of the desired lamp dimming level; and the lamp dimming level control software causing the dimming control circuit to generate the inverter control signal based on the desired lamp dimming level digital data.

Regarding claim 6, prior art fails to teach or suggest the lamp dimming level control software causing the dimming control circuit to convert the digital dimming control signal into desired lamp dimming level digital data representative of the desired lamp dimming level; and the lamp dimming level control software causing the dimming control circuit to generate the inverter control signal based on the desired lamp dimming level digital data.

Regarding claim 7, prior art fails to teach or suggest the lamp dimming level control software causing the dimming control circuit to generate the inverter control signal based on the existing lamp dimming level digital data.

Regarding claim 8, prior art fails to teach or suggest the lamp dimming level control software causing the dimming control circuit to generate the pulse width modulated inverter control signal.

Regarding claim 9, prior art fails to teach or suggest the lamp dimming level control software causing the dimming control circuit to generate the frequency modulated inverter control signal.

Regarding claim 10, prior art fails to teach a dimming control circuit including an input voltage feedback input for receiving an input voltage feedback signal representative of input voltage being supplied to the dimming ballast; and line voltage control software for causing the dimming control circuit to shut down the inverter circuit if the input voltage feedback signal indicates that the input voltage has fallen below a minimum input voltage level.

Claims 11-12 would be allowable since they are dependent on claim 10.

Regarding claim 13, prior art fails to teach or suggest the dimming control circuit further including a lamp condition feedback input for receiving a lamp condition feedback signal representative of lamp condition; and lamp condition control software for causing the dimming control circuit to shut down the inverter circuit if the lamp condition feedback signal indicates that the lamp has reached an end of lamp life condition.

Claims 14-15 would be allowable since they are dependent on claim 13.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin et al. (US 6,809,938 B2) cited to teach inverter controller.

Wang et al. (US 6,337,544 B1) cited to teach digital lamp signal processor.

Crouse et al. (US 5,925,990) cited to teach microprocessor controlled electronic ballast.

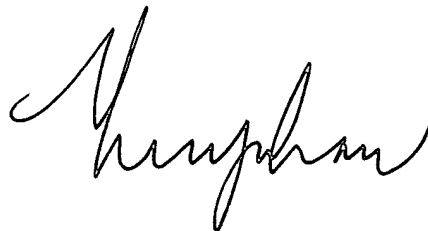
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu Hien T. Duong whose telephone number is 571-272-8980. The examiner can normally be reached on Monday - Friday, from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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DD



THUY V. TRAN
PRIMARY EXAMINER